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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,036	09/05/2003	Robert Allen Kondratenko		8478

7590 01/19/2005

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EXAMINER

ZANELLI, MICHAEL J

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/656,036

Applicant(s)

KONDRATENKO ET AL.

Examiner

Michael J. Zanelli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The application filed 9/5/03 has been examined. Claims 1-6 are pending.
2. The drawings are objected to because each view must be labeled as "Fig. XX", not by sheet number (37 CFR 1.84(u)). Also sheet 1 shows two different views and thus requires two separate labels. It is also suggested that applicant amend the drawings and specification to include reference numbers to aid in correlating the description with the drawings.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The disclosure is objected to because of the following informalities: The Brief Description of the Drawings and the specification should refer to the drawings by Figure not

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sheet number (see comments above in paragraph 2). Note also previous comment regarding the use of reference labels.

4. Claims 1-3 and 5 are objected to because of the following informalities:
 - A. As per claim 1, only the first word of the claim should be capitalized.
 - B. As per claim 5, insert a period at the end of the claim.
 - C. All claims depending from an objected base claim are also objected to as containing the same deficiencies.
5. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - A. As per claim 1, the claim preamble sets forth a method claim but fails to recite any method steps. The claim merely recites structures which define an apparatus. Further, "said system" lacks antecedence.
 - B. As per claim 2, "the track receiver outputs" lacks antecedence since no track receivers have been previously recited.
 - C. As per claim 4, the claim fails to recite sufficient structure capable of performing the functions claimed.
 - D. As per claim 5, "the track receiver" and "the carborne ATC equipment" lack antecedence.
 - E. As per claim 6, the claim is unclear as to what structure performs the recited function and the nexus with the subject matter set forth in claim 4.

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F. All claims depending from a rejected base claim are also rejected as containing the same deficiencies.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4 and 6, as best interpreted given the deficiencies noted above, are rejected under 35 U.S.C. 102(b) as being anticipated by Hsu (5,574,469) or Matheson et al. (5,794,172).

A. Hsu discloses an on-board train control apparatus (Fig. 3) which includes a means (55,57) for receiving radio signals, a train location system (53) and a processor (49) for receiving the radio and location signals and producing output signals used in automatic train control equipment. The system also provides output radio signals (col. 4, lines 6--8).

B. Matheson discloses an on-board train control apparatus (Fig. 10) which includes a means for receiving/transmitting radio signals (i.e., transducers), a train location system (226) and a processor (208) for receiving the radio and location signals and producing output signals used in automatic train control equipment.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a

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person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-6, as best interpreted given the deficiencies noted above, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kull (5,995,881) in view of Hungate et al. (5,950,966) and Hsu.

A. As per claims 1-6, Kull discloses an integrated cab signal and rail navigation system (Fig. 3) which includes a train location system (200) and a cab signal system (110) whereby the signals are used in carborne ATC equipment (see Abs). Although one could interpret the "radio signal" as the radio signal transmitted by GPS satellites and processed by the train location system, the limitation that the apparatus receives the radio signals and train location data suggests that the received radio signal is from a separate source. However, at the time of applicant's invention it was well-known in the train control art to incorporate information from various sources in order to safely operate a train over a given track layout. For example, Hungate shows a train control system (Fig. 4) in which information from a navigation receiver (32) is combined with information received by radio (33) to safely operate a train traveling on a track layout.

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Similarly, Hsu (Fig. 3) shows a train control system which receives information by radio about other trains traveling along the track layout. One of ordinary skill in the art would have found it obvious to incorporate additional sources of information whereby the obvious advantage would have been the safer operation of the train. Moreover, Kull discloses applicant's concept of integrating cab signaling and on-board navigation systems whereby the train can be safely operated even in "dark spots" and make use of existing infrastructure, thus reducing costs (col. 5, lines 40-57).

B. With regards to claims 2, 3 and 5, as above wherein one of ordinary skill in the art would have found it obvious that the integration of the two systems could be achieved either through software processing or mechanical devices which would allow the systems to operate independently or by combining outputs.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited documents are of general interest.

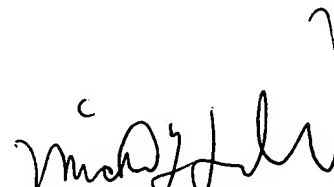
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Zanelli whose telephone number is (703) 305-9756. The examiner can normally be reached on Monday-Thursday 5:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/mjz



MICHAEL J. ZANELLI
PRIMARY EXAMINER